NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

STUDENT-FACULTY EVALUATION: WHAT PLACE IN ACADEME?

by

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and

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June 1984

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REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle) Student-Faculty Evaluation: What Place in Academe?	5. TYPE OF REPORT & PERIOD COVERED Master's Thesis; June 1984
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Vivian G. Melidosian and Carol A. White	8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93943	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93943	12. REPORT DATE June 1984
	13. NUMBER OF PAGES 112
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)	15. SECURITY CLASS. (of this report)
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Student-Faculty Evaluation
Student-Teacher Evaluation
Performance Evaluation
Faculty Performance Evaluation

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Questions regarding the usefulness of the Naval Postgraduate School's Student Opinion Form (SOF) as a device to measure teaching effectiveness have prompted this research. The possibility that the SOF may weigh heavily in pay, promotion, and tenure decisions is cause for research into its validity and reliability as an evaluation instrument. The first of three separate studies described here consists of an analysis

of a questionnaire distributed to all teaching professors in the NPS Administrative Sciences Department. The second study concerns a questionnaire completed by 258 Administrative Sciences students, and the third study considers the responses of 560 students to four supplementary items added to the SOF. The results indicate that neither students nor faculty members feel strongly that SOF's actually measure or improve teaching effectiveness, that a large part of the variation in SOF ratings is attributable to factors other than a professor's teaching quality and, finally, that a student's anticipated course grade or cumulative grade point average has little correlation with the SOF ratings given the professor.

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Student-Faculty Evaluation:
What Place in Academe?

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
June 1984

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I. INTRODUCTION

A. MOTIVATION

In recent years, a great deal of interest has been expressed about evaluating the quality of instruction. Reasons for this interest appear to include decreasing college enrollments, increasingly demanding educational goals, and a growing emphasis on instructional accountability. Since 1975, the Student Opinion Form (SOF) has been used at the Naval Postgraduate School as a tool to measure the teaching effectiveness of instructors. Student-faculty evaluations (SFE's) of instructor effectiveness have become widely accepted in the academic world as helpful indicators of performance, but there has been considerable controversy regarding their validity for use in pay, promotion, and tenure decisions. In addition to the questionable validity of SFE's, another common criticism is that they are biased by variables that are unrelated to teaching effectiveness. Frequently, however, computer formatted students' evaluations are the only form of faculty evaluation used, mainly because of ease of administration and processing.

Many college faculty fear that too much emphasis on student-faculty evaluations may lead to manipulative and other corruptive practices that would have a negative impact on the quality of education and on the academic community

in general. These concerns are certainly not new to the academic world. In fact, these problems have plagued educators as far back as medieval times. Historical writings about medieval European universities discuss the restrictive methods resorted to in an attempt to prevent these potentially corruptive practices. Professors were paid a "collecta" or fee by each student to teach an agreed-upon amount of material by a specified date. A group of students was appointed by the rector to report negligent professors who had not fulfilled their contractual agreement. Based upon this group's evaluation, a fine would be imposed upon the professors for each day they had fallen behind in their teachings. Although this may be viewed as an extreme response to the problem, many educators today question the ultimate impact of student evaluations on teaching effectiveness. These concerns, as well as the potential benefits to be gained from student-faculty evaluations, have triggered numerous studies.

B. RESEARCH

Research interest in student-faculty evaluation (SFE) has increased significantly in recent years. This concentrated attention not only is due to student interest but also seems to be a function of the increased use of SFE in the determination of faculty promotions and salaries. In fact, the agencies that govern public colleges and

universities in some states require that SFE be employed as one component in pay, promotion, and tenure decisions. This requirement is apparently based on the premise that SFE provides a precise and quantifiable evaluation of instructors. However, the assignment of numbers to instructor/course attributes does not automatically confer reliability or validity upon the rating system as a whole. There have been numerous studies with extremely inconsistent results as to the relationship between SFE and teaching effectiveness (as measured by amount learned). [Ref. 1] Studies that resulted in both highly positive [Ref. 2] and highly negative correlations [Ref. 3] have been reported; however, the majority of these studies yielded correlations that did not differ significantly from zero [Ref. 4].

The major aim of student-rating proponents is basically to obtain more valid, reliable, and effective means of incorporating the evaluation of teaching into advancement procedures that might otherwise be available. These proponents also feel that there are many benefits to be gained from these evaluations. Specifically, Costin, Greenough, and Menges, in an extensive review of reliability, validity, and usefulness of student ratings, state that:

> 1. Such ratings could provide feedback which the instructor might not be able to elicit from students on a face-to-face basis. (This information alone, with no sanctions contingent, could improve teaching.)

> 2. They could provide departmental and college-wide norms against which individual faculty ratings could be judged.
>
> 3. They could provide a way in which a faculty member could, if he desired, demonstrate his undergraduate teaching effectiveness to those who have expressed an interest in evaluating this parameter for salary increase.
>
> 4. They could provide information to the department and college on areas of relative strength or weakness in undergraduate teaching, suggest directions for the development of new courses or programs, and provide evaluative information and norms on the various new programs which are implemented.
>
> 5. They could provide the student with a source of information to aid him in the selection of courses. [Ref. 5]

It should be noted that these benefits can exist only to the extent that student-faculty evaluations portray accurate and valid appraisals of classroom instruction.

Maslow and Zimmerman, when asking students to make global ratings of teachers' effectiveness, provided the following definitions to aid students in making their ratings:

> . . . A person deserving the highest possible rating, as a teacher, was described as one who is both capable and efficient, who loves his job and manages to inspire his students, who is himself inspired with his work, who is talented, and who not only respects and appreciates his students, but also has good relations with them. The highest rating as a personality was to be given to a very healthy, well integrated person, subjectively at ease with himself, happy or content, using all his constructive capacities, enjoying life without neurotic or psychotic maladjustments. [Ref. 6]

Though Maslow and Zimmerman found a 0.76 correlation between students' ratings of "good teaching" and "good personality," both personality and ability were so vaguely defined as to

cause difficulty in interpreting the results with any precision. [Ref. 7]

It cannot be denied that SFE is influenced by many non-instructional variables, which, more than likely, account for the inconsistent findings, as noted above. Variables such as class size, course level, presentational style, actual or expected grade, and student group are all likely major determinants of SFE. For instance, an interesting example of the effect of presentational style and format was demonstrated at one school in which a professional actor was hired to deliver a series of lectures to a large student group. Because of his enthusiastic, humorous, and personable manner, he received extremely high ratings; though entertaining, educational content of his presentation was low or totally absent. [Ref. 8] The favorable rating in this case can be considered to be a function of superficial popularity or what is sometimes referred to as the "popularity halo."

In another study, Brown (1976) found that student grades accounted for approximately nine percent of the variance among student ratings (on the average across classes). It was his interpretation that, as a result of this small but positive relationship between student grades and student ratings, professors can technically "buy" high student ratings by giving their students high grades. [Ref. 9] This is a very popular interpretation of the frequent low correlations and poor regression results that are obtained. Conversely,

Voeks and French have found in their studies that "high ratings cannot be 'bought' by giving high grades, nor are they lost by giving low grades." [Ref. 10] This finding would imply that college students have greater objectivity and less superficial value systems than they have been given credit for by others.

Howard and Maxwell (1980) have proposed three models that attempt to bridge the gap between these two schools of thought. [Ref. 11] Their first model (Figure 1) very simply states that students' evaluations are directly dependent on their expected or actual grades.

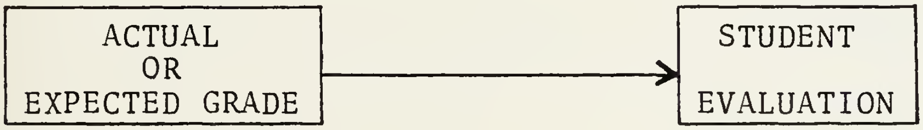
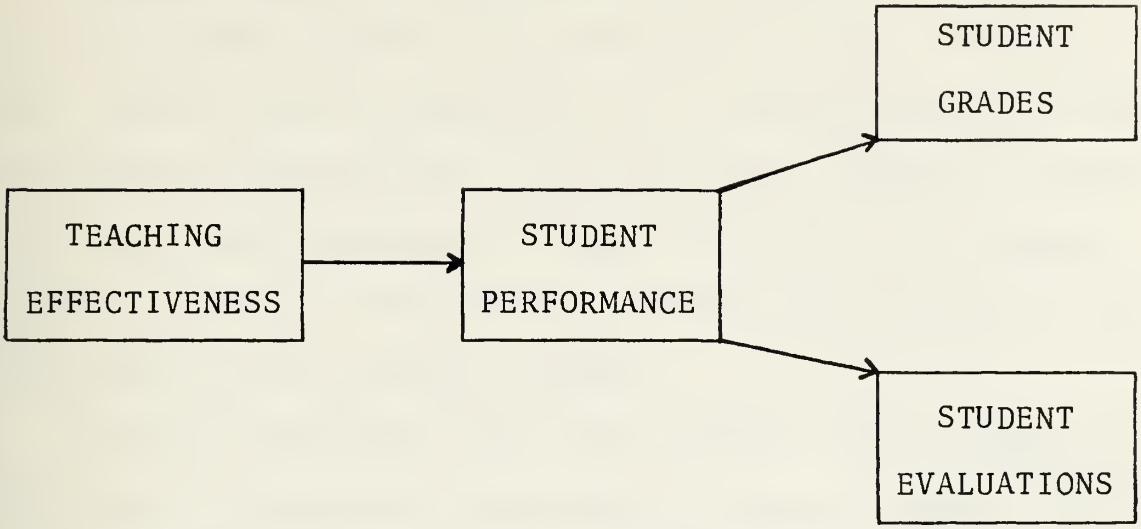


Figure 1. Grading Leniency Bias Model

Their second model (Figure 2) suggests that greater teaching effectiveness causes improved student performance, which consequently results in both higher student grades and student evaluations. Howard and Maxwell's final model (Figure 3) proposes that greater student motivation causes better student performance, resulting in higher student grades and higher student evaluations.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STUDENT PERFORMANCE
STUDENT EVALUATIONS

Figure 2. Teaching Effectiveness Model

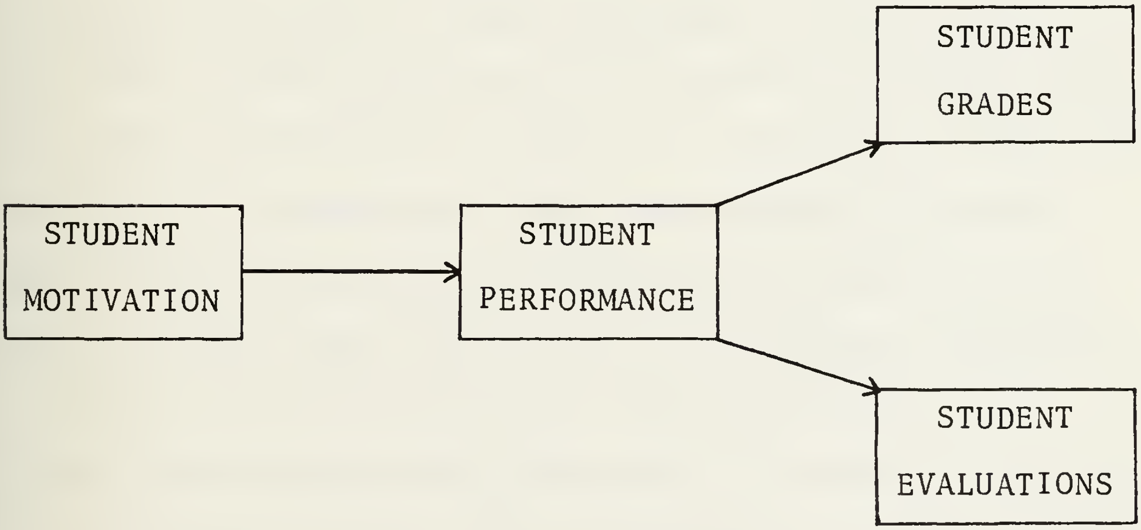
STUDENT GRADES
STUDENT MOTIVATION
STUDENT PERFORMANCE
STUDENT EVALUATIONS

Figure 3. Student Characteristics Model

Figures 2 and 3 both exhibit a positive relationship between student grades and student evaluations. However, this association is interpreted as a logical result of student performance and not bias. As can be seen, there is little agreement among researchers about the effects of student grades on student evaluations, and even concerning the interpretation of the research results.

Several researchers have also focused their studies in the direction of instructor personality traits. Results in this field reveal that "overall effectiveness" of teaching, as perceived by students, seems to be positively related to instructor characteristics (e.g., imagination, intelligence, emotional stability, enthusiasm). For example, Hildebrand and Wilson conducted a highly acclaimed research project of this kind. Their main goal was to develop a reliable instrument that would provide a basis for evaluating teaching that could also be incorporated into advancement procedures. Their report discusses the development of three forms of varying lengths that could be used as teaching evaluation instruments for the California State University system. Both student and faculty characterizations of effective teaching were assessed, but the final recommended instrument relied heavily on the students' characterization. Five scales (teacher description scales), established from this instrument via factor analysis, have the following conceptual interpretations:

1. Analytic/Synthetic Approach--scholarship, with emphasis on breadth, analytic ability, and conceptual understanding.

2. Organization/Clarity--skill at presentation, but is subject-related, not student-related, and not merely concerned with rhetorical skills.

3. Instructor-Individual Student Interaction--rapport with the class as a whole, sensitivity to class response, and skill at securing active class participation.

4. Instructor-Individual Student Interaction--mutual respect and rapport between the instructor and the individual student.

5. Dynamism/Enthusiasm--flair and infectious enthusiasm that comes with confidence, excitement for the subject, and pleasure in teaching. [Ref. 12]

These five scales have become widely acknowledged and several researchers have based their studies on them.

Standard characteristics currently found on over twenty-eight student-faculty evaluations were reviewed in this study. The following factors seemed to be the most relevant and popular: course/lecture organization, instructor attitude toward student understanding, instruction preparation, clarity of explanation, instructor knowledge, instructor evaluation of student, ability to teach at appropriate level, instructor attitude/enthusiasm toward course, instructor attitude toward questions, instructor control of class time, instructor availability, instructor ability to evoke interest, clarity of course objectives, instructor attitude toward student progress, rapport with students, course workload, and, finally, relations of subject matter to real world applications. There also have been studies that numerically

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